THE PEATLANDS STEWARDSHIP STRATEGY

PROMOTING THE SUSTAINABILITY OF PEATLANDS

Part of:
TOMORROW NOW
Manitoba's GREEN Plan

Manitoba

TOMORROW NOW

Manitoba's GREEN Plan

This document is part of TomorrowNow – Manitoba's Green Plan; an eight-year strategic action plan for mobilizing Manitobans to work together to protect the environment while ensuring a prosperous and environmentally-conscious economy. In addition to the actions outlined in this plan, the province has other initiatives underway to ensure we protect the environment and sustainably manage our natural resources now, for tomorrow.

Manitoba's goal is to be one of the most sustainable places to live on earth.

The following photos are courtesy of Christian Artuso / Bird Studies Canada:
American bittern (cover), blue-spotted salamander (p. 9), great gray owl (p. 13)

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INTRODUCTION

WHAT ARE PEATLANDS?

Manitoba follows the Canadian Wetland Classification System (CWCS) in its definition and classification of wetlands. Peatlands are organic wetlands that contain more than 40 centimetres of peat accumulation. The two main peatland classes under the CWCS are bogs and fens. Bogs are peatlands that receive water only from rain and snowfall, while fens are peatlands that receive more mineral-rich water from sources such as groundwater discharge.

Approximately 34 per cent of Manitoba, or approximately 19,000,000 hectares, are peatlands. Peatlands cover three per cent of the world's surface but contain 30 per cent of the world's carbon. International research has indicated that peatlands are the most efficient terrestrial ecosystem in storing carbon and the most important long-term carbon store.

Ecosystem goods and services (EGS) are those products of the natural environment that are essential and valuable to human well- being. In addition to storing carbon, Manitoba's peatlands provide many other valuable ecosystem goods and services, such as water resource management, biodiversity conservation, and Aboriginal resource use.

The natural environment, also called natural capital, is the source of EGS and is made up of things such as soils, forests and wetlands that provide the EGS essential to life. They include the natural landscape and its physical features (ex: carbon stored in forests and water stored in lakes) as well as natural resources that are often extracted for our use (ex: water, timber, minerals). Similar to interest provided by a financial institution on a bank account, the interest on natural capital is the EGS. A reduction in natural capital results in less EGS in the same way that a reduction in a bank balance results in less interest.

The high carbon storage value of peatlands makes them important for managing and mitigating the impacts of climate change. The disturbance of peatlands can also contribute to greenhouse gas emissions by releasing carbon into the atmosphere.

When boreal peatlands are disturbed - through natural occurrences such as fire and flooding, and human activities such as peat harvesting, mining, agriculture, forestry, hydroelectric and other developments – natural capital is reduced, making a compelling case for effective stewardship.

The Peatlands Stewardship Strategy:

The Peatlands Stewardship Strategy (PSS) has been identified as a priority under "TomorrowNow – Manitoba's Green Plan". The Plan is a comprehensive environmental strategy that sets out the province's vision and direction for continued protection of water, air and land for future generations while bolstering Manitoba's economy.

As part of the development of this strategy, the government held a State of Knowledge Workshop co-hosted by Ducks Unlimited Canada, and the Canadian Boreal Initiative.

In 2011, *The Save Lake Winnipeg Act* was passed by the Manitoba Legislature. This act placed a two-year moratorium on issuing new peat quarry leases, holding 147 peat quarry applications in pending status.

Building on the suggestions from the first workshop in 2010, a second Peatlands Workshop was held in February of 2012 to better understand the full range of values and uses of Manitoba's peatlands. Representatives from Aboriginal communities, industry and other organizations gathered to share information and provide advice on the development of the strategy.

In 2013, the moratorium on the issuance of peat quarry leases was extended for a two-year period and a new license moratorium under *The Environment Act* was established. This new moratorium was designed to ensure that no new peat extraction would be permitted on existing leases.

The Manitoba government recognizes the importance of the province's peatlands and the need to take a comprehensive approach to managing them. *The Peatlands Stewardship Strategy* aims to manage our peatlands responsibly through conservation, sustainable development and the enhancement of social benefits. The vision of the PSS is for healthy, well-managed peatland ecosystems that are able to provide valued ecological goods and services, including responsible economic development opportunities.

The strategy will promote the protection and responsible development of peatlands and recognize the various interests of Manitobans.

The peatlands stewardship strategy comprises 22 interconnected initiatives, to be implemented by 2020, under the following themes:

1. Peatlands Management
2. Integrated Environmental Protection
3. Responsible Peatland Harvesting and Recovery
4. Scientific Enhancement
5. Public Engagement

1. Peatlands Stewardship:

Finding a balance – promoting protection and responsible use

To maintain the health and integrity of the overall environment, wise stewardship of peatlands is required. The Peatlands Stewardship Strategy (PSS) will seek to balance peatland use with the need to conserve peatlands so they can provide important ecosystem goods and services for future generations.

The Manitoba government recognizes that the responsible stewardship of peatlands requires an integrated and co-ordinated approach – developing common strategies for the management of the many different uses within each peatland area. The requirements for biodiversity conservation, land rehabilitation and climate change mitigation/adaptation need to be incorporated into management strategies. The PSS will work to improve co-ordination and communication across economic sectors and between provincial government departments, stakeholders and Aboriginal communities.

WHAT WE'VE DONE

Banned peat harvesting in parks – On February 25, 2013 Manitoba Conservation and Water Stewardship announced the removal of all peat quarry leases from within Hecla/Grindstone Provincial Park as well as a ban of peat harvesting in provincial parks and in the nominated UNESCO World Heritage Site on the east side of Lake Winnipeg.

Crown-Aboriginal consultation – The Manitoba government respects the treaty and Aboriginal rights of First Nations, Metis and other Aboriginal people. A comprehensive Crown-Aboriginal consultation process was conducted on peat Environment Act licence applications in the Washow Peninsula area of the Interlake. These consultations have now concluded and the information shared by communities has led to a significant increase in the numbers of licence conditions being applied to the licences.

Public engagement – The department continues to work with the public, including non-government organizations, Aboriginal communities and industry. Work continues to evaluate peatland management strategies both nationally and internationally in order to better understand the current state of knowledge of peatlands.

SHORT-TERM OBJECTIVES

1. CANADA'S FIRST PEATLANDS STEWARDSHIP LAW

As part of the PSS, the province will introduce new legislation and regulations which will remove peat from *The Mines and Minerals Act* to a new act under Manitoba Conservation and Water Stewardship. No other jurisdiction in Canada has stand-alone legislation related to peatlands.
The new legislation will:

- govern commercial peat harvesting
- include a strong peatland recovery requirement
- allow for the protection of provincially significant peatlands

The legislation will prohibit new peat harvesting dispositions within wildlife management areas. Peat harvesting will also be prohibited within all provincial parks.

LONG-TERM OBJECTIVES

2. ENHANCED MONITORING AND ASSESSMENT

The stewardship of peatlands is a long-term commitment by the Government of Manitoba. Continuous assessment and monitoring of the impacts to peatlands whether natural or man-made, will be conducted.

3. ADAPTIVE MANAGEMENT

Adaptive management strategies will be employed based on new and evolving information in order to provide for the sustainable management our peatlands. Adaptive management can be described as "learning by doing". It is a continual process of design and implementation followed by monitoring and evaluation. The lessons learned through the monitoring and evaluation are then used to refine the design and implementation going forward. Part of this adaptive management is the co-ordination of peatland protection with other provincial protection priorities identified under the provincial Protected Areas Initiative.

4. PURSUE RAMSAR DESIGNATION

Ramsar sites are wetlands that are recognized under the Ramsar Convention as areas of international importance.

The Convention on Wetlands – called the "Ramsar Convention" – is an intergovernmental treaty that embodies the commitments of its member countries to maintain the ecological character of their wetlands of international importance and to plan for the "wise use", or sustainable use, of all of the wetlands in their territories.
There are currently two Ramsar sites in Manitoba: Delta Marsh, and Oak Hammock Marsh.

Manitoba Conservation and Water Stewardship will conduct an evaluation of its protected peatlands and will seek to have peatlands of international importance listed as RAMSAR sites.

2. Integrated Environmental Protection:

Co-ordinating approaches to policy decisions

Many Manitoba government jurisdictions have mandates that affect peatlands. The PSS is an overall policy that will integrate and co-ordinate efforts to manage and protect peatlands. An integrated approach will ensure collaboration within government and enable incorporating different values and uses.

WHAT WE'VE DONE

Changed the way we view peat – Peatlands were historically overlooked as unique and important ecosystems. Peatlands are now considered as beneficial wetlands and peat is an organic substance that should be managed and protected as part of the comprehensive and connected ecosystem of similar natural resources.

Better departmental co-ordination – Recently, a new Forestry and Peatlands Management Branch was created that brings together expertise in natural resource management. The vast majority of Manitoba's forests and peatlands are in the boreal forest and the new branch has systems and structures in place that complement the management of both.

New management plans for the East Side of Lake Winnipeg – Under *The East Side Traditional Lands Planning and Special Protected Areas Act*, the Manitoba government approved management plans that were submitted by local First Nations. These management plans prohibit the development of the peat resources within the planning area. The Pimachiowin Aki World Heritage Site will further strengthen the protection of the resources in the area under the International Union for the Conservation of Nature.

SHORT-TERM OBJECTIVES

1. A NEW ERA OF POLICY CO-ORDINATION

The driving force behind the Peatlands Stewardship Strategy is "TomorrowNow – Manitoba's Green Plan". The completion of the PSS has been identified as a priority under TomorrowNow and is closely linked with other key initiatives such as the Surface Water Management Strategy, the Wetlands Policy, greenhouse gas reporting, climate change mitigation and adaptation, and biodiversity loss offset.

We have heard from the public that peatlands issues cannot be addressed in isolation and must be coordinated and integrated with other legislation and policies.

2. POLICY SPECIALIZATION

The integration of peatlands management into the newly named Forestry and Peatlands Management Branch provides a new focus on the importance of this resource in provincial policy co-ordination. New staff within the Branch, dedicated solely to peatlands issues, will act as main contact points for their provincial and federal colleagues as well as the public. These staff will participate in government-wide initiatives related to peatlands and will work to ensure that peatlands management issues and concerns are brought forward as part of the decision-making process.

LONG-TERM OBJECTIVES

3. BIODIVERSITY LOSS OFFSET PILOT PROJECT

As part of the commitment under TomorrowNow to develop a biodiversity loss offset policy, Manitoba Conservation and Water Stewardship will work with other departments and industry to develop a pilot project to assess environmental impacts and natural resource losses resulting from peatlands development.

4. REPORTING OF GREENHOUSE GAS EMISSIONS

The PSS will be consistent with regulations developed under TomorrowNow - Manitoba's Green Plan for greenhouse gas emission reporting as well as thresholds and other requirements.

5. CLIMATE CHANGE RESILIENCE

Manitoba's peatlands will be part of the "TomorrowNow – Manitoba's Green Plan" initiative of adapting to climate change and will be a specific part of Phase 2 of this initiative, which is an examination province-wide assessment of the potential risks facing communities, ecosystems and the economy, as well as Phase 3, the monitoring and evaluation framework of the adaptation strategies.

3. Responsible Peatland Harvesting and Recovery: Establishing new guidelines and strengthening enforcement

Manitoba recognizes the importance of the peat industry to rural economic development and employment opportunities. Approximately 250 Manitobans are directly employed in the peat harvesting sector. Currently, peat-harvesting operations are concentrated in southern Manitoba around specific bogs. Unless planned wisely, intensive use of peatlands has the potential to negatively affect the EGS derived from peatlands.

Manitoba's peat harvesting sector has been estimated as representing up to three per cent of all Manitoba's greenhouse gas (GHG) emissions. Conservation, recovery and wise use of peatlands are essential and very cost effective measures for long-term climate change mitigation and adaptation, as well as biodiversity conservation.

WHAT WE'VE DONE

Cumulative effects study – The International Institute for Sustainable Development (IISD) was contracted to assess the cumulative effects of peat harvesting in the Interlake region. A copy of the interim report is available at www.manitoba.ca/conservation/peatlandsstewardshipstrategy/publications.html.

This report concludes that negative impacts to water can be fully mitigated but the impact of carbon release requires further policy development.

SHORT-TERM OBJECTIVES

Under the PSS, Manitoba will continue to work with the peat industry and others to recognize and implement harvest and recovery best management practices.

1. REMEDIATION GUIDELINES

   Guidelines for the type and timing of site remediation including end-use consultations, will be concluded based on the recognition that various factors influence the type and timing of site remediation, including the proposed end use of the site. Best practices will be developed to guide in the planning of these activities.

2. WILDLIFE MONITORING

   Different areas of the province have different stresses on flora and fauna than others. In consultation with the Wildlife Branch, proponents will develop and submit wildlife monitoring programs for approval.

3. PERFORMANCE-BASED MEASURES

   Guidelines for the submission of harvest and recovery plans will require conditions on licencees to ensure they conduct operations as planned. This includes water quality monitoring, recovery efforts, and on-time payment of dues, among others. Licence renewal will be dependent on meeting these performance measures.

4. RE-ESTABLISHMENT OF FUNCTIONING ECOSYSTEMS

   Under the new legislation, regulations will be developed that require strict adherence to peatlands recovery plans post-harvest.

LONG-TERM OBJECTIVES

5. NEW RESEARCH PARTNERSHIPS

The government will seek to join Manitoba's peat producers and other stakeholders in new research to increase our understanding of Manitoba's peatlands - including recovery.

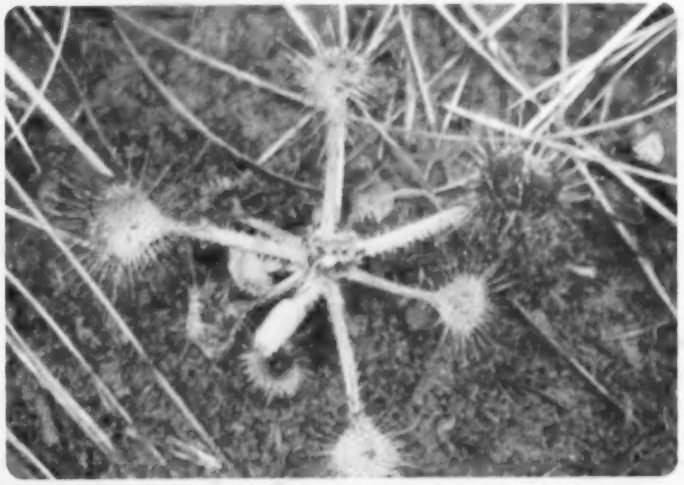
At the national level, the peat harvesting industry has a long history of working with academia in researching new peatland recovery techniques, climate impacts and hydrological characteristics of peatlands. The Canadian Sphagnum Peat Moss Association and the Natural Science and Engineering Research Council of Canada (NSERC), currently fund an Industrial Chair in Peatland Management at the University of Laval, in Quebec City. This research has been ongoing for over 20 years. Manitoba intends to expand on the work done by exploring opportunities with the Peatland Ecology Research Group for local research projects.

4. Scientific Enhancement:

Making new partnerships to increase our understanding

Manitoba Conservation and Water Stewardship understands there are gaps in the scientific knowledge of Manitoba's peatlands. A number of measures are planned to promote increased research into Manitoba peatlands. The goal of increasing scientific knowledge of Manitoba's peatlands includes initiatives to collate existing knowledge and conduct new research to fill in knowledge gaps.

Canada's wetlands, including peatlands, have been identified as the most important carbon sink in the world. The peatlands of Manitoba store an estimated 18 to 19 gigatonnes of carbon. This amount is equivalent to almost a century of Canada's GHG emissions. Manitoba's 19 million hectares of peatlands accumulate roughly four million tonnes of new peat every year in the province equivalent to 20 per cent of all of Manitoba's GHG emissions.



Manitoba has committed $900,000 over six years to support the IISD takeover of operations at the Experimental Lakes Area (ELA). This funding is dedicated to funding freshwater research and technology at the ELA and will provide Manitoba with access to an extensive body of ongoing research, as well as involvement in future research projects.

WHAT WE'VE DONE

Action on climate change – Through its Beyond Kyoto climate change action plan, Manitoba has successfully implemented a suite of climate change actions to reduce GHG emissions and adapt to the impacts of a changing climate.

Under this action plan, the Manitoba government supported the conduct of an above and below ground carbon inventory in Poplar River First Nation, which is located in a region where more than half of its land area is covered by peatlands. As well, decision support tools were developed and tested to assess the risks, vulnerabilities and adaptive capacity of terrestrial ecosystems (forests, grasslands and wetlands) to climate change.

A regional wetlands inventory – Manitoba Habitat Heritage Corporation (MHHC) has been contracted to work with Manitoba Conservation and Water Stewardship in the development of a new wetlands inventory. This inventory is being developed over multiple phases on a priority needs basis. Phase 1 is currently under development for the Southern Interlake and southeast part of the province. This is the area where current peat harvesting activities are located.

A terrestrial carbon management action plan (TCMAP) – Manitoba contains vast areas of forest and peatlands landscapes that sequester atmospheric carbon and mitigate the effects of global warming and climate change. The TCMAP was developed to increase awareness of carbon cycles and ensure responsible resource management in an effort to enhance the carbon storage capacity of Manitoba forests and peatland ecosystems.

The focus of the action plan is to increase scientific knowledge of terrestrial carbon stocks and cycles, promote stewardship of carbon pools, and understand and incorporate terrestrial carbon pools in Manitoba's climate change initiatives and policies.

Actions and activities have been undertaken by the Forestry and Peatlands Management Branch to evaluate carbon stocks and rates of change over time, enhance the removal of atmospheric carbon dioxide, reduce greenhouse gas emissions, increase forest resilience to climate change and maximize the long-term climate change mitigation value of our forest resources and peatlands.

SHORT-TERM OBJECTIVES

1. FURTHER CARBON RESEARCH

The Forestry and Peatlands Management Branch will continue its work on the TCMAP. The branch will continue its investigations on carbon pools across the province using the Carbon Budget Model developed by the Canadian Forest Service. Results of these investigations will lead to adapted management strategies and provide an accounting of terrestrial carbon pools for provincial greenhouse gas targets. They will also help in evaluating economic opportunities.

2. GREEN ECONOMY DEVELOPMENT

Peatlands are the most efficient terrestrial ecosystem for storing carbon, cover three per cent of the world's landmass and contain twice as much carbon as the world's forest biomass. Climate change is expected to have a significant impact on the ability of peatlands to store carbon, as well as affect greenhouse gas fluxes and biodiversity. Fire is considered the most significant threat to peatlands and this risk is projected to increase under current climate change modelling scenarios. In "TomorrowNow – Manitoba's Green Plan", the province has committed to develop a new Climate Change Action Plan that will build upon the successes of our greenhouse gas reductions, while adapting to impacts of climate change. A Green Economy and Green Jobs Action Plan is also in development that seeks to build a strong, resilient green economy that will reduce environmental risks and ecological scarcities, while improving well-being and social equity for all Manitobans.

A public consultation process is underway to generate input on how to develop mechanisms for reducing GHG emissions and risks over the next eight years while also seizing opportunities for a low carbon future.

LONG-TERM OBJECTIVES

3. PROVINCE-WIDE WETLANDS INVENTORY

Currently the department is working with MHHC on Phase 1 of the wetland inventory. Phase 1 includes areas of the Interlake, the lower east side of Lake Winnipeg and the southeast corner of the province.

The completion of a full province-wide inventory of Manitoba's wetlands will continue to be a priority for government. The development of a brand new and comprehensive inventory is a costly and time-consuming endeavour. The department will work to find cost savings through partnerships and information sharing with other stakeholders.

4. MADE IN MANITOBA RESEARCH

Scientific collaboration is critical to Manitoba becoming a leader in peatland research management and protection. Manitoba is working to improve the local knowledge base on Manitoba peatlands. New research opportunities will be pursued through partnerships with organizations and institutions.

5. Public Engagement:
Improving education and sharing knowledge

Manitoba Conservation and Water Stewardship will continue to engage First Nations and Metis communities, organizations involved in wetlands and peatlands research and stewardship, industry representatives, academics and other interested parties.

Peatlands have provided, and will continue to provide, Aboriginal peoples with valuable resources such as medicinal plants and areas for hunting and trapping. The Manitoba government recognizes it has a duty to consult in a meaningful way with First Nations, Metis communities and other Aboriginal communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or Aboriginal right of that First Nation, Metis community or other Aboriginal community.

Manitoba Conservation and Water Stewardship will continue to work with the industrial sector on issues such as effective recovery planning, administration and business-related considerations, among others. Manitoba Conservation and Water Stewardship will also begin consultations with industry to develop an industry-wide approach to mitigating GHG emissions as part of a broad climate change strategy.

WHAT WE'VE DONE

Manitoba Conservation and Water Stewardship has sponsored two workshops to share knowledge and gain an understanding of the full range of perspectives about the province's peatlands.

A Manitoba Conservation and Water Stewardship web page on peatlands is at www.manitoba.ca/conservation/peatlandsstewardshipstrategy/index.html.
This site provides information about Manitoba's peatlands including the importance of peatlands to climate change and the people of the province, as well as frequently asked questions and links to Manitoba's peatlands publications.

SHORT-TERM OBJECTIVES

1. BIANNUAL WETLANDS WORKSHOPS

   Biannual wetlands workshops will enhance further collaboration and maintain the focus on improved understanding of Manitoba's wetlands – including peatlands.

2. ABORIGINAL TRADITIONAL KNOWLEDGE

   An Aboriginal traditional knowledge project will build on what we have learned from First Nations through formal Crown-Aboriginal consultations and at public workshop sharing exercises.

LONG-TERM OBJECTIVES

3. RELATIONSHIP BUILDING

The PSS will seek to improve the knowledge of peatlands for all Manitobans. Opportunities will be pursued for collaboration, strengthening existing relationships and building new relationships with non-governmental organizations.

4. IMPROVED SOCIAL MEDIA AWARENESS

Building on the accessibility of the information contained on our peatlands web page, improving our social media presence will help enhance public understanding of the challenges and opportunities of peatland stewardship.

WE WANT TO HEAR FROM YOU

All Manitobans will have the opportunity to provide input into this plan. We welcome your ideas, suggestions and feedback on plan priorities, objectives and actions.

To send your advice or comments, or for information about The Peatlands Stewardship Strategy, please contact:

Manitoba Conservation and Water Stewardship
Attn: Peatlands Stewardship Strategy
Box 38, 200 Saulteaux Crescent
Winnipeg, Manitoba R3J 3W3
or
Email: pss@gov.mb.ca

Please send comments by August 1, 2014.

For more information on Manitoba's peatlands and other information, please visit our website at www.manitoba.ca/conservation/peatlandsstewardshipstrategy/index.html.

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